

CS-8716/BCS033035
Rudiger Suelmann et al
METHOD OF IDENTIFYING FUNGICIDALLY ACTIVE COMPOUNDS
BASED ON FUNGAL MEVALONATE KINASES

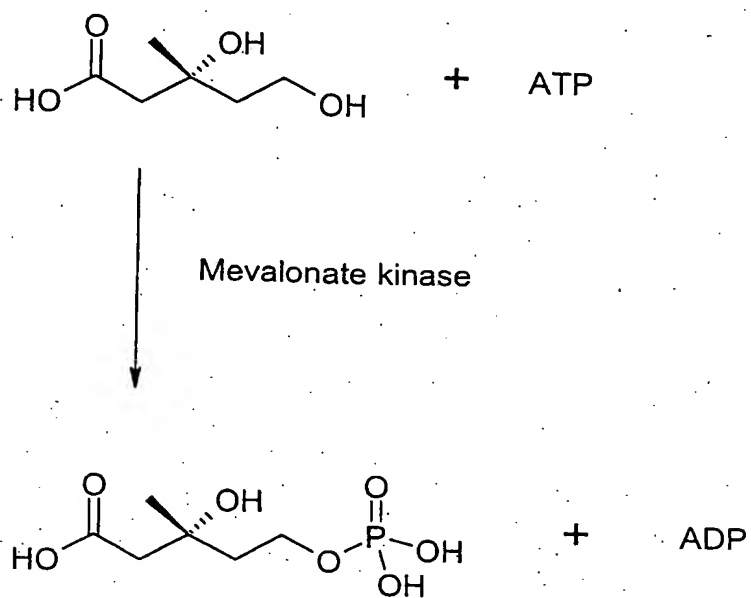


Figure 1

METHOD OF IDENTIFYING FUNGICIDALLY ACTIVE COMPOUNDS
BASED ON FUNGAL MEVALONATE KINASES

1 ----- S cerevisiae
1 ----- S pombe
1 ----- U maydis
1 MAEQEHNGVNGFHSESEQRNQPVNGDASEAVNGNPSNGLRVITIEESASSA N crassa
1 ----- M grisea partially

1 -----MSLPFLTAPGKVIIIFGEHSAVYNK S cerevisiae
1 -----MSKSLIVSSPGKTIIFGEHAVVYGA S pombe
1 -----MNRARLETRGGEGEPSAQDHPSPSSVVVSAPGKVIIIFGEHAVVHGI U maydis
51 VNGGSPTNSMLTFIRQRMERKKSSPMMPTFMVAPGKVIIIFGEHAVVHKG N crassa
1 ----- M grisea partially

26 FAVAAVSVALRTYLLISESS-APDTIETDFPDISFNMKWSINDFNAITED S cerevisiae
26 TALAAVA-LRSYCKLQTTN--NNEIVIVMSDIGTERRWNLSLPWQHVT S pombe
48 TAVAAVA-LRCYANVSPRE--DGKISIDLPGLVHTWNIAADLPWSAVP U maydis
101 AAIAAPAS-LRSYLLVNTLSKSKRTVTIKFPDIDFNHNSWNIDELPWKIFQ N crassa
1 -AVAAAIN-LRSYLLVTALS KSKRTITIRFPDIDLIHTWNIDLPWSTFS M grisea partially

75 QVNSQKLAKAQOATDGLSQETVSLLDPIIAQLS--ES-----FHYHDAFC S cerevisiae
73 VENVQHPASSPNL-----DLLOGLGETLKNEE--NG-----LIHSAMLC S pombe
95 -KSIQGGGAVPDS---LDKTLIGAIEKVVGDTVNESE-----RSHAASIA U maydis
150 QPGKKKYYYSLV--EIDQELVDAVQPFADVSIDKPADIRKVHONSAGS N crassa
49 QPSKKKYYIDLVT--SLDPIDMDAIQPHIEPVSSDAPDAQRKVHMSAAAA M grisea partially

118 FLYMFCVLCPHAKN--IKFSIKSTIPIGAGLGSSASISVSIALAMAYLGG S cerevisiae
110 TLYLETSSPSQ--CTLTISSQVPIGAGLGSSATISVVVATSIALLAFG S pombe
136 FIVLYMCIAGQADARAQAFVIRSAIPIGAGLGSSAALSSCLAAATILYG U maydis
198 FLYMELSIGSQSFP-GCQYTIIRSTIPIGAGLGSSATIAVCLSAAILLQLR N crassa
97 FLYMELSIGSHAFP-GGIYTIIRSTIPIGAGLGSSASISACLSAAILLQIR M grisea partially

166 LIGSNDLEKLSNDK---HIVNWAIFIGEKCITHGTPSGIDNAVATYGNAL S cerevisiae
158 NIEPESSNSLQNNKA--LALTEAWSELGECIHTGTPSGIDNAVATNGGLI S pombe
186 RIPAFGSELSAEHST---HINEWAEISEKVIHGTTPSGVDNTVAVHGGAI U maydis
247 TLSGEHPDQPPPEARLQIERINRWAFVYEMFIHGNPSGVDNTVSTQKAV N crassa
146 TLSGEHPDQPPDEARVQVERINRWAFVEMCIHGNPSGVDNTVSTQKAV M grisea partially

213 IFEKDSHNGTINTNNFKFIIDFPAIPMILTYTRIPRSTKDLVARVRVVT S cerevisiae
206 AFRKATAH---QSAMKEFIKPKDTLSVMITDTKQPKSTKKLVQGVFEK- S pombe
232 AETRAHPSNTLTANKMNKIKGSSFRLLVSCVGREGKLIHVAQAOK- U maydis
297 VFQRTDYN---QPPSVRPLWDFPKLPLLLVDRTAKSTAHEVAKVATIK- N crassa
196 VFQRLDYA---RPPVVTMPWDFPELPLLVVDTKQAKSTIYEVEKVAKIR- M grisea partially

263 EKFEVVMKFIIDAMGECALQGLEIMIKLSKCKGTDDEAVEITNNELYEQLL S cerevisiae
252 ERLFTVIDSIIDAIDGISKSAVLATISE-----SDKNSS----AKKLG S pombe
281 ESEETRVNAATARIQTIADSAQLVLTGN-----SGLSRSEQ----VAQLR U maydis
343 KKHEQLVGITITAITDQVTQSSAQLIEEQ-----GFNTEDEES----LSKVG N crassa
242 ETHEKIVNSIIDSMCKLTQAATDVITIDE-----DFDNEDVES----LQKVG M grisea partially

313 ELIRINHGLLVSGVSHPGLELIKNISSDLRTG--STKLTGAGGGGCSIT S cerevisiae
291 EFIVLNQKLLIECLGVSHYSIDRV--IQATKSIQ--WTKLTGAGGGGCTIT S pombe
322 ELIKQNHSELVGLVSHASLELIKNTESFAPDQLATKLTGAGGGGCAVT U maydis
385 EMMTINHGLLVSLGVSHPRLERVREIVDHEGIG--WTKLTGAGGGGCSIT N crassa
284 ELMGMNHGLLVSLGVSHPRLERVREIVDHEGIG--WTKLTGAGGGGCSIT M grisea partially

361	LI	RRDITQ	QIDSFKKK	QDDFSYET	FETDL	GGT	GCCLLSAKNLNKDLKI	S cerevisiae
337	LT	PECKEE	EFKLCKES	LAHK-NSIYDV	QLGG	PGVSVV	TDSDS-----	S pombe
372	LL	PDDFEE	EKVKELMSE	LENAG-FKCYET	RVGG	DGFGVKLL	QDEQE----	U maydis
433	LI	RPGVPR	EKLDKLEQR	IDEEG-YSKFET	TLS	SDGVGLWP	AVLKNGMDE	N crassa
332	LM	RPDVPR	EKLERLKER	LDHE				M grisea partially
411	KS-----	LVFQLFENK	TTTKQQID	LLPGNTNLP	WTS			S cerevisiae
380	-----	FFPQYESD	FDFKKLNLL	SKFNKYYI				S pombe
417	--E-----	AEAKLRFKE	ANVSNELAV	WADLAGWVFA.				U maydis
482	DEEGGMEI	DLEKFLSAD	SNEALEKLV	GVHGDRGER	EGWKFW	RVENRD		N crassa
352								M grisea partially

Figure 2

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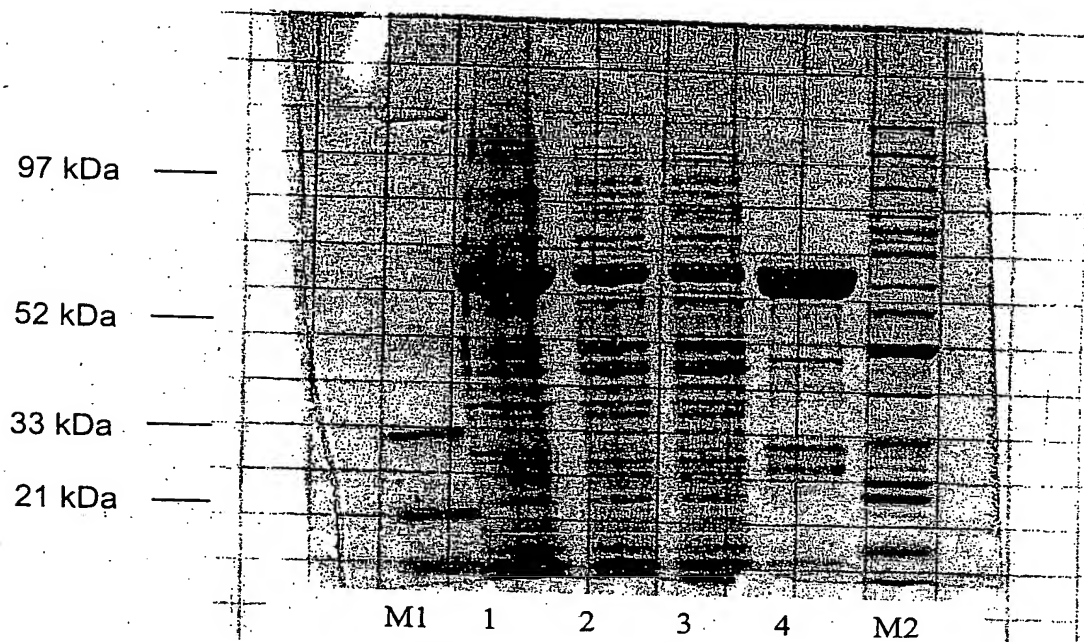


Figure 3

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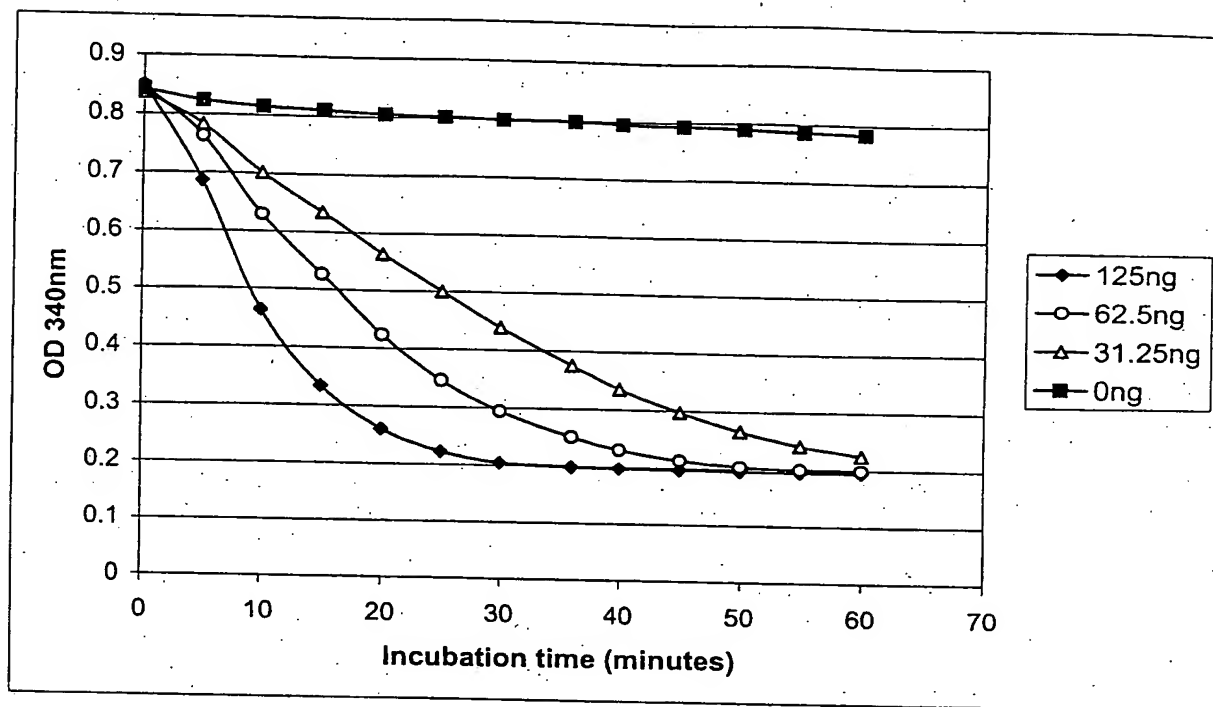


Figure 4